

Phil.^a February 24th 1890.

Sir:

I have the honor to submit the following report.

Since assuming the duties of Chief Engineer, I have made a general inspection of the engines, boilers &c. under my care.

Engines. — I find Engine #1 in fair general condition & working satisfactorily. Engine #2. I understand, was put in order last Summer & should be in condition to run at any time, upon short notice, I am informed, however, that there is a crack in base of throttle valve chamber & I would not recommend the use of that Engine until the chamber is replaced.

To run these Engines alternately, monthly, would be an advantage, but their construction is such that to do so, would entail considerable labor & risk of heating crank pins &c. All this could have been obviated by a central pillar block or clutch, by which they could be separated, so as to run either Engine — or both.

Boilers. — As far as external inspection can determine, the boilers appear to be in good condition. The joints on Man holes, and junction valves are giving out, and should be renewed as soon as possible. New drip cocks should be put on glass gauges. A stock of grate bars is also needed, as the supply is small, & new bars are often required at short notice.

Pumps. - The Hall pumps used to feed the boilers, I am told, have been a constant source of annoyance & trouble for a long time. I think they are of sufficient capacity to do the work, & their plan of construction is simple; & if in good order, with proper care, should meet all requirements.

The setting of these pumps is much against them; they should be raised at least 18" & the pipes straightened, & the exhaust changed to a different direction, so as to avoid all back pressure.

I would recommend having them overhauled at once by the makers, as we should be in a position of safety in this important connection at all times, & entirely independent of the injector, which is now used too often.

Ashes. - The present plan of removing ashes is very objectionable, entailing a large amount of extra labor on the firemen, & filling the alley-ways, clothes rooms & engine room with dust & dirt to the detriment of the department. I would recommend the use of the original vault to overcome all this, & have the carts come at a stated hour; hoist the ashes & fill them direct from the buckets; the present ash vault could then be used for a small repair shop with a vice bench etc. which is often required for hurried work.

In view of the constant care of all the auxiliaries of the department, such as pumps, valves, joints etc. I would recommend that a practical

Machinist & Steam fitter be attached to the department, whose duty it should be to care for & keep them in order at all times, for at present the system of depending upon the firemen on Sundays to do such work is to me very objectionable and unsatisfactory.

Tanks. - The Donkey pump used for pumping the tanks & wells is constantly at work, and if left too long on the small tank over the adjusting Room, will overflow it, for the reason that the outlet is smaller than the inlet, which should be changed so as to avoid accident. I would recommend in this case an increase of the overflow pipe to 3".

Porter Allen Engine. This engine that stands on the West side of building, & formerly used for the Electric Lights, is a high speed Engine & does not develop its full power until running at about 275 turns, I would not recommend its use therefore to run the Coining room, as the difference in size of pulleys required to reduce the speed to the proper amount & consequent loss of power would make it impracticable.

Mr. Caldwell's proposition to mark all the valves on water & steam pipes leading to the different rooms is a good one, & should be attended to without delay.

Col. J. A. Ege
Custodian
U. S. Mint.

Very Respectfully
Chas. F. Pratt
Chief Engineer.

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Hila.

February 24. '90

Mr. J. Hall.

Chief Engineer.

Report of the
Engineer

Recd. February 24 '90

NARA RG104, Entry 1, Box 162

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The setting of these pumps is much against them; They should be raised at least 18” & the pipes straightened, & the exhaust changed to a different direction, so as to avoid all back pressure. I would recommend having them overhauled at once by the makers, as we should be in a position of safety in this important connection at all times, & entirely independent of the injector, which is now used too often.

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In view of the constant care of all the ancillaries of the department, such as pumps, valves, coins &c. I would recommend that a practical machinist & steam fitter be attached to the

department, whose duty it should be to care for & keep them in order at all times, for as present the system of depending upon the firemen on Sundays to do such work is to me very objectionable and unsatisfactory.

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Very respectfully
Wlm. F. Pratt
Chief Engineer.

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